

Application No.: 09/806,304
Examiner: E. Garcia
Art Unit: 3679

In the Claims

The claims are amended as shown on the following pages under the heading AMENDMENT TO THE CLAIMS. The list shows the status of all claims presently in the application and is intended to supersede all prior versions of the claims in the application. Any cancellation of claims is made without prejudice or disclaimer.

AMENDMENT TO THE CLAIMS

Claims 1-32 (Canceled).

Claim 33 (Canceled).

Claim 34 (Canceled).

Claim 35 (Canceled).

Claim 36 (Currently Amended). A corner joint ~~for joining comprising~~ two frame side members having attachment channels and mitered end portions, ~~said joint including and~~ at least one corner piece having two insert parts joined at connecting ends to define a corner portion and positioned relative to one another at a predetermined angle, each insert part configured to be received by the mitered end portions of a respective one of the attachment channels of the side members;

each of said insert parts includes an end portion geometrically configured in the shape of a triangle having an apex directed along a longitudinal axis of the respective ~~an~~ attachment channel, each insert part defining a first leg arranged to be urged against an inner wall of a the respective attachment channel, a second leg connecting at a first end with a first end of the first leg to form the apex and extending at an oblique angle relative to the first leg in a direction generally proximal to the corner portion, and a third leg extending obliquely relative to the first and second legs in a direction generally proximal to the corner portion and connecting to the first leg.

Claim 37 (Canceled).

Claim 38 (Canceled).

Claim 39 (Currently Amended). A corner joint according to claim 36, wherein the attachment channels include lip projections arranged along an outer surface thereof and configured to be pressed in a slanting direction relative to the

longitudinal axis of a the respective one of the attachment-channels channel, said lip projections having at least one of the following characteristics:

a free end of each lip projection being situated behind a central axis of a respective inclined part; and

a longitudinal axis of the third leg of the insert part and the longitudinal axis of the lip projection are canted inwardly towards the inner wall of the respective attachment channel.

Claims 40-48 (Canceled).

Claim 49 (Canceled).

Claim 50 (Canceled).

Claim 51 (Canceled).

Claim 52 (Canceled).

Claim 53 (Currently Amended). A corner joint comprising for joining two frame side members having attachment channels and mitered end portions, said joint including and at least one corner piece having two insert parts joined at connecting ends and positioned relative to one another at a predetermined angle, each of the insert-part parts configured to be received by the mitered end portions of a respective one of the attachment channels of the side members,

the corner joint comprising having a locking device including at least one upset material part in the shape of a lip projection defined by slantingly press-in parts of the respective attachment-channels channel of the side members, each of the insert parts including at least one locking element arranged to press the lip projection,

each lip projection defining a contact surface disposed at one end thereof arranged to cooperate with a contact side of the insert part,

the at least one locking element defining a contact surface geometrically configured to substantially contact the entire length of the lip projection,

each of said insert parts includes an end portion geometrically configured in the shape of a triangle having an apex directed along a longitudinal axis of an attachment channel, a first leg of the triangular shaped insert part arranged to be urged against an inner wall of a ~~the respective of one of said attachment-channels~~ channel.

Claim 54 (Currently Amended). A corner joint ~~for joining comprising~~ two frame side members having attachment channels and mitered end portions, ~~said joint including and~~ at least one corner piece having two insert parts joined at connecting ends to define a corner portion and positioned relative to one another at a predetermined angle, each insert part configured ~~and~~ to be received by the mitered end portions of a respective one of the attachment channels of the side members;

each of said insert parts includes an end portion geometrically configured in the shape of a triangle having an apex directed along a longitudinal axis of ~~an the~~ respective attachment channel, each insert part defining a first leg arranged to be urged against an inner wall of a the respective attachment channel, a second leg connecting at a first end with a first end of the first leg to form the apex and extending at an oblique angle relative to the first leg in a direction generally proximal to the corner portion, and a third leg extending obliquely relative to the first and second legs in a direction generally proximal to the corner portion and connecting to the first leg, wherein a panel is retained by the frame members by a plurality of wedges in ~~register combination~~ with a center portion of the second leg.

Claim 55 (Currently Amended). A corner joint ~~comprising for joining~~ two frame side members having attachment channels and mitered end portions, ~~said joint including and~~ at least one corner piece having two insert parts joined at connecting ends to define a corner portion and positioned relative to one another at a

predetermined angle, each insert part configured ~~and~~ to be received by the mitered end portions of a respective one of the attachment channels of the side members;

each of said insert parts includes an end portion geometrically configured in the shape of a triangle having an apex directed along a longitudinal axis of ~~an~~ the respective attachment channel, each insert part defining a first leg arranged to be urged against an inner wall of a the respective attachment channel, a second leg connecting at a first end with a first end of the first leg to form the apex and extending at an oblique angle relative to the first leg in a direction generally proximal to the corner portion, and a third leg extending obliquely relative to the first and second legs in a direction generally proximal to the corner portion and connecting to the first leg, wherein a panel is retained by the frame members by a plurality of wedges in register combination with the second leg, the second leg directed such that an intersection of an extension thereof with an edge of a panel is situated a distance near 10 cm from a corner of the panel.

Claim 56 (Currently Amended). A corner joint ~~for joining comprising~~ two frame side members having attachment channels and mitered end portions, ~~said joint including~~ and at least one corner piece having two insert parts joined at connecting ends to define a corner portion and positioned relative to one another at a predetermined angle, each insert part configured ~~and~~ to be received by the mitered end portions of a respective one of the attachment channels of the side members;

each of said insert parts including an end portion geometrically configured in the shape of a triangle having an apex directed along a longitudinal axis of ~~an~~ the respective attachment channel, each insert part defining a first leg arranged to be urged against an inner wall of a the respective attachment channel, a second leg connecting at a first end with a first end of the first leg to form the apex and extending at an oblique angle relative to the first leg in a direction generally proximal to the corner portion, and a third leg extending obliquely relative to the first and second legs in a direction generally proximal to the corner portion and connecting to the first leg;

wherein each of the insert parts includes a resilient element comprising said first leg and a connecting leg situated in the extension of said first leg for connecting the end portion with the connecting end of the insert part the end portion and the resilient element of each of said insert parts arranged so that the end portion places the resilient member in tension when inserted into the respective one of said attachment channels channel.

Claim 57 (Currently Amended). The corner joint according to claim 56, wherein the resilient elements are arranged to be positioned generally along the inner surface of the respective attachment channel.

Claim 58 (Canceled).

Claim 59 (Currently Amended). A corner joint ~~for joining comprising~~ two frame side members having attachment channels and mitered end portions, ~~said joint including and~~ at least one corner piece having two insert parts joined at connecting ends and positioned relative to one another at a predetermined angle, each insert part configured to be received by the mitered end portions of a respective one of the attachment channels of the side members;

wherein the corner joint is provided with locking means comprising of upset material parts in the shape of a lip projection made by means of slantingly press-in parts of the side members which cooperate with notches defined on the corner piece;

wherein the insert pieces include at least one notch, said notches comprising:

a triangular shape defined by one side against which the lip projection is positioned is longer than another side over which a free end of the lip projection is pressed in; and

a shape of a predominantly right-angle triangle, wherein the relation between said one side against which the lip projection is situated and said another side over which the free end of the lip projection is pressed in is

variable by the compression characteristics of the material of the side members;

wherein the side of the notches over which the free end of the lip projection is pressed in, on the place where the free end of the lip projection makes contact with the one side extends perpendicular or substantially perpendicular to the longitudinal direction of the lip projection; and

wherein said side of the notches over which the free end of the lip projection is pressed in has a concave bent or buckled shape.

Claim 60 (Currently Amended). The corner joint according to claim 36, wherein each of the insert parts includes at least one locking element having at least one notch disposed along a surface thereof, said at least one locking element arranged to abut a locking means defined along an outer surface of the respective attachment channel;

wherein said locking means is a deformable lip projection extending at a predetermined angle from the outer surface of the respective attachment channel, the lip projection being deformable by the at least one locking element.

Claim 61 (Currently Amended). The corner joint according to claim 36, wherein a filling compound is provided in the respective attachment channel, the triangular shape of each of said insert parts configured to urge the filling compound towards an outer wall of a the respective one of said attachment channels-channel.

Claim 62 (Currently Amended). The corner joint according to claim 56, wherein said insert part including a locking part arranged to lock with an outer surface of the respective attachment channel; and

wherein a clearance is defined between the outer surface of the respective attachment channel and the insert part when the corner part is inserted into the

respective at least one attachment channel, the clearance generally extending from the locking part to at least the connecting end of the insert part.

Claim 63 (Currently Amended). The corner joint according to claim 56, wherein the corner piece is provided with positioning elements arranged to guide the insert parts into the attachment channels when positioned therein; and

wherein the positioning elements include at least one of the following elements;

elastic press-on elements provided to push the inner sides of the insert parts against an inner surface of the respective attachment-channels channel;

elastically bendable flaps provided on the insert parts at a predetermined distance from the connecting ends thereof and arranged to cooperate with the outer surface of the respective attachment-channels channel;

support and guiding elements provided on the corner part in the shape of a little leg having elastically bendable flaps arranged to cooperate with the outer surface of the respective attachment-channels channel.

Claim 64 (Previously Presented). The corner joint according to claim 56, wherein the corner piece includes a clearance generally defined at an inside corner where the insert parts connect and having a hook-shaped profile.

Claim 65 (Previously Presented). The corner joint according to claim 56, wherein the insert parts connect to form a unitary corner piece.